18502

SOUNDINGS IN FEET

NOAA nautical charts are constructed to exacting standards and are designed to promote safe navigation. Since our waterways are subject to continual change, the National Ocean Service encourages chart users to submit corrections or comments for the improvement of this product to the Director, Charting and Geodetic Services (N/CG22), National Ocean Service, NOAA, Rockville, Maryland 20852. By working together, we can make our activities safer and more enjoyable.

Thomas J. Maginnis
Assistant Administrator for Ocean Services
and Coastal Zone Management

Formerly C&GS 6185, 1st Ed. June 1982 C-1942-576

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Astoria, OR KEC-91 162.40 MHz
Olympia, WA WXM-62 162.475 MHz

STORM WARNINGS

The National Weather Service displays storm warnings at the following approximate locations:

Grays Harbor C.G. Sta. (46°54.3'-1/-4°07.3')
Ocean Shores Marina (46°58.4'-124°08.5')

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to C.-apter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, WA., or at the Office of the District Engineer, Corps of Engineers in Seattle, WA.

Refer to charted regulation section numbers.

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Charting and Geodetic Services with additional data from the Corps of Engineers and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

PLANE COORDINATE GRID

The Washington State plane coordinate grid, South Zone, (based on NAD 1927) is indicated on this chart by dashed ticks at 10,000 foot intervals. The last three digits are omitted.

The Corps of Engineers' local plane coordinate grid is shown by dotted ticks at 10,000 foot intervals. The origin is East Base, 1909.

Both grids are shown on the Westhaven Cove inset at 2,000 foot intervals.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

HEIGHTS

Heights in feet above Mean High Water.

LOGARITHMIC SPEED SCALE

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. With right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run

UNITED STATES - WEST COAST
WASHINGTON

GRAYS HARBOR

Mercator Projection
Scale 1:40,000 at Lat. 46°56'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

TIDAL INFORMATION

Place (Name, (Lat/Long))	Height referred to datum of soundings (M.L.L.W.) Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
	feet	feet	feet	feet
Point Chehalis (46°55'16"/124°07'W)	9.6	8.3	1.4	0.0
Aberdeen (46°58'16"/123°51'W)	10.1	8.4	1.5	0.0
Montesano, Chehalis River (46°58'16"/123°38'W)	8.1	7.5	0.8	0.0

(1996)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1)

Aids to Navigation lights are white unless otherwise indicated.

AERO aeronautical — G green — Mo morse code — R TR radio tow
Al. alternating — Gp. group — N. nun — Rad. reflector
B. black — IQ. interrupted quick — OBSC obscured — s. seconds
Bn. beacon — Iso. isophase (E. Iso) — Oc. occulting — SEC. sector
C. can — LT. HO. lighthouse — Or. orange — St. M. mauve (violet)
Dol. dolphone — M. nautical mile — Q. quick — VQ. very quick
E. Iso. equal interval (Iso.) — m. minutes — R. red — W. white
F. fixed — MICRO. TP. microwave tower — Ra Ref. radar reflector — WHIS. whistle
Fl. flashing — Mkr. marker — R Bn. radiobeacon — Y. yellow

Bottom characteristics

Blds. boulders — Co. coral — gy. gray — Oys. oysters — wd. soft
co. broken — G. gravel — h. hard — Rk. rock — Sh. shells
Co. clay — Gns. grass — M. mud — S. sand — sy. stoney

Miscellaneous

AUTH. authorized — Obstn. obstruction — PD. position doubtful — Subm. submerged
ED. existence doubtful — PA. position approximate — Rep. reported
21. Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.
COLREGS. International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: ——— ——— ———

AUTHENTICATION

Pier Ed. July 89 ■
18502

CAUTION

This chart has been corrected from the Notice to Mariners published weekly by the Defense Mapping Agency Hydrographic/Topographic Center and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the date shown in the lower left hand corner.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

SOUNDINGS IN FEET

FATHOMS 1 2 3 4 5 6 7
FEET 6 12 18 24 30 36 42
METERS 1 2 3 4 5 6 7 8 9 10 11 12 13

C 55.418/7: 18502

best copy available

NOAA nautical charts are constructed to exacting standards and are designed to promote safe navigation. Since our waterways are subject to continual change, the National Ocean Service encourages chart users to submit corrections or comments for the improvement of this product to the Director, Charting and Geodetic Services (N/CG22), National Ocean Service, NOAA, Rockville, Maryland 20852. By working together, we can make our activities safer and more enjoyable.

Thomas J. Maginnis
Assistant Administrator for Ocean Services
and Coastal Zone Management

Formerly C&GS 6196, 1st Ed., June 1980 C-1942-576

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Astoria, OR	KEC-91	162.40 MHz
Olympia, WA	WXM-62	162.475 MHz

STORM WARNINGS

The National Weather Service displays storm warnings at the following approximate locations:

Grays Harbor C.G. Sta. (46°54.3'-124°07.3')
Ocean Shores Marina (46°58.4'-124°08.5')

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, WA., or at the Office of the District Engineer, Corps of Engineers in Seattle, WA.

Refer to charted regulation section numbers.

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○(Accurate location) ◇(Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Charting and Geodetic Services with additional data from the Corps of Engineers and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

PLANE COORDINATE GRID

The Washington State plane coordinate grid, South Zone, (based on NAD 1927) is indicated on this chart by dashed ticks at 10,000 foot intervals. The last three digits are omitted.

The Corps of Engineers local plane coordinate grid is shown by dotted ticks at 10,000 foot intervals. The origin is East Bass, 1909.

Both grids are shown on the Westhaven Cove inset at 2,000 foot intervals.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

HEIGHTS

Heights in feet above Mean High Water.

LOGARITHMIC SPEED SCALE

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected on average of 0.07" southward and 4.6'-9" westward to agree with this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

UNITED STATES - WEST COAST
WASHINGTON

GRAYS HARBOR

Mercator Projection
Scale 1:40,000 at Lat. 46°56'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

TIDAL INFORMATION

Place Name	(Lat/Long)	Height referred to datum of soundings (MLLW): Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
		feet	feet	feet	feet
Point Chehalis	(46°55'N/124°07'W)	9.5	8.3	1.4	-3.0
Aberdeen	(46°58'N/123°51'W)	10.1	9.4	1.5	-3.0
Montesano, Chehalis River	(46°58'N/123°36'W)	9.1	7.5	0.8	-3.0

(1198)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo(--) morse code	R TR radio tower
Al alternating	Gp group	N nun	Rot rotating
B black	IQ interrupted quick	OBSC obscured	s seconds
Bn beacon	Iso isophase (E Iso)	Oc occulting	SEC sector
C con	LT HO lighthouse	Or orange	St M statute mile
DIA diaphone	M nautical mile	Q quick	VQ very rapid
E int equal interval (Iso)	m minutes	R red	W white
F fixed	MICRO TR microwave tower	Rfl Ref radar reflector	WHIS whistle
Fl flashing	Mkr marker	R Bn radiobeacon	Y yellow

Bottom characteristics:

Bld boulders	Co coral	Gy gritty	Oys oysters	so soft
bk broken	G gravel	h hard	Pk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
(D) existence doubtful	PA position approximate	Rep reported	
⚠ Wreck, rock, obstruction, or shoal swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			

COLREGS, International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

SOUNDINGS IN FEET

FATHOMS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19
FEET	6		12		18		24		30		36		42		48		54		60		66		72		78		84		90		96		102		108		114
METERS	1	2		4		6		8		10		12		14		16		18		20		22		24		26		28		30		32		34		36

(Grays Harbor, Wash.)
SOUNDINGS IN FEET - SCALE 1:40,000

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

best copy available